

USSN 10/658,598

Amendment responsive to Office Action mailed on March 3, 2005

June 3, 2005

A-1955

REMARKS

Claim 10 is canceled, claims 1, 6, 8, and 9 have been amended, and new claims 13-16 have been added.

The rejection of claim 10 under 35 U.S.C. 112, second paragraph is moot, since claim 10 has now been canceled.

Claims 1, 2, 3, 7, and 10 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2001-001059. A translation of this reference is attached hereto for the Examiner's convenience. Significantly, the '059 reference, already of record in this application and in parent Patent No. 6,660,106, merely discloses the prior art, which is friction stir welding of two fully heat treated aluminum plates, following which the resultant "wide flat plate" 23 is drawn into a parabolic shape for use as a parabolic antenna mirror surface plate. The drawing step is discussed in paragraph [0017] of the '059 reference, and is shown in Fig. 5. See the instant specification, page 3, lines 17-25, for a discussion of friction stir welding, as known in the art, and the fact that it is only known in connection with fully heat-treated aluminum alloys. On the other hand, spin forming, as known in the art, is only known for forming parts which are in the annealed temper (page 3, line 25 of instant specification).

Thus, claim 1 is clearly patentable over the Japanese '059 reference. The '059 reference does not disclose spin forming, but rather a drawing step. A significant difference between the two is that drawing is routinely performed on a fully heat treated plate, as is the case for the '059 reference, whereas spin forming is only performed on annealed plates. The new language added to the claim is intended merely to further define the process of spin forming as being different than the drawing process discussed in the '059 reference, since spin forming involves clamping the blank, applying heat thereto, and rotating the blank, while also applying selected pressure thereto using a spinning tool. Support for this amendment is found in the specification at page 2, lines 2-11. The '059 reference does not disclose the clamping, heating, or rotating steps now specifically spelled out in claim 1. Moreover, it would not have been obvious to spin

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form, rather than draw, the '059 product, because it is fully heat treated and not suitable for spin-forming.

Claims 2-9 and 11-12 are dependent upon claim 1 and thus allowable as well.

New independent claim 13 is similar in many respects to claim 1, but specifically recites a step of annealing the blank after it has been friction stir welded and before the spin forming step. Clearly, this claim is patentable over the '059 reference, which does not disclose or suggest an annealing step. New independent claim 16 recites a friction stir welding step which involves a material in an annealed condition. This claim, as well, is patentable, since the '059 reference does not disclose or suggest friction stir welding annealed material.

The rejections of claims 4, 5, 9, 11, and 12 as being obvious over the Japanese reference, and of claims 6 and 8 as being obvious over the Japanese reference in view of Shrayer et al., do not render the claims presently of record to be unpatentable, for the reasons discussed above.

Regarding the double patenting rejection, a terminal disclaimer accompanies this submission.

Authorization is hereby given to charge any fees necessary in connection with this submittal to Deposit Account No. 13-5135.

Applicants respectfully submit that this application is now in condition for allowance, and an early notification of same is respectfully solicited. The Examiner is requested to contact the undersigned at the number below, should any further

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questions or issues need to be resolved.

Respectfully submitted,



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